



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,648	03/29/2004	Jose Ramirez II	1020P18387	3409
57035	7590	04/28/2009		
KACVINSKY LLC C/O INTELLEVATE P.O. BOX 52050 MINNEAPOLIS, MN 55402			EXAMINER FOUD, HICHAM B	
			ART UNIT	PAPER NUMBER
			2419	
			MAIL DATE	DELIVERY MODE
			04/28/2009 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/812,648

Applicant(s)

RAMIREZ ET AL.

Examiner

HICHAM B. FOUAD

Art Unit

2419

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/03/2009 has been entered.

Response to Amendment

2. The amendment filed on 04-03-2009 has been entered and considered.
- Claims 21-38 are pending in this application.
- Claims 1-20 have been canceled.
- Claims 21-38 are rejected as discussed below.

Claim Objections

3. Claims 21-25 and 26-29 are objected to because of the following informalities:
- In claim 21, the term "standard" has no antecedent basis.
- In claim 26 line 9, one of the terms "an" needs to be deleted.
- Claims 22-25 and 27-29 are objected to because of their dependency on the objected claim.
- Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21-23, 25-28, 30-32, 34-36 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips (US 6,188,898) in view of Kuffner (US 2003/0235167).

For claim 21, Phillips discloses an apparatus, comprising: a radio comprising two or more physical layer blocks (See Figure 2 elements DECT, PHS, GSM900); a configuration processor to arrange the two or more physical layer blocks to communicate according to one of at least two or more radio communication protocols (see Figure 2 element "SELECT"); the configuration processor to determine the availability of the two or more physical layer blocks prior to the arrangement of a particular physical block to a desired communication protocol (see column 3 lines 56-64; when the protocol has been identified, the corresponding software package is retrieved and downloaded; "the download requires the availability of the physical block, otherwise how can be any download?". The details of the mobile terminal are then checked to ensure that the terminal is registered and the call is set up according to the desired protocol and see column 2 lines 11-13). Phillips further discloses downloading the desired radio communication protocol and programming the radio to communicate according to the desired radio communication protocol (see column 56-64). Phillips discloses all the subject matter with the exception of explicitly disclosing the

reprogramming of an idle or less frequently used physical layer block according to the desired radio communication protocol in the case of there is no available physical layer block. However, Kuffner from the same or similar field of endeavor teaches the reassignment/reprogramming and the reconfiguration of the physical layer blocks (see Figure 1 and [0014]) wherein the reprogramming/reassignment can be based on priority, quality parameter and availability (see [0016] lines 8-13 and [0028] lines 1-14; GPS physical block is reprogrammed/reconfigured with CDMA2000 to insure voice communication instead of GPS information). Thus, it would have been obvious to the one skill in the art at the time of the invention to recognize the need of reconfiguring/reprogramming an idle/available or less frequently used or less prioritized physical block as taught by the method of Kuffner into the invention of Philips for the purpose of reconfiguring physical layer blocks to accommodate the desired protocol and to marshal the available resources to improve the performance of the resources currently in use and therefore enhance system performance (Kuffner [0003] lines 9-11 and [0004] lines 13-14).

For claims 22 and 35, Kuffner further discloses an apparatus, said two or more physical layer blocks including software defined radio logic block being programmable to cause the two or more physical layer blocks to be reprogrammed to communicate according to at least one or more radio communication protocols (see Figure 1, the connection between System Manager (110) and Communication resource (102, 104 and 106) by the configuration control and see Figure 2 element SDR "software defined receiver).

For claims 23 and 36, Phillips in view of Kuffner discloses an apparatus, further comprising a memory having a database stored thereon, the database including information to configure the two or more physical layer blocks to communicate according to one of the at least two or more radio communication protocols (Phillips: see column 2 lines 19-24 and Kuffner: see Figure 1, "deployment Rules" and System Manager (110); inherently, the system manager must have a memory to save the deployment rules to execute them and see Paragraph 0036; the use of RAM or ROM).

For claims 25 and 38, Phillips in view of Kuffner discloses an apparatus further comprising a beacon transceiver to transmit a beacon to a remote device, wherein a beacon transmitted by said beacon transceiver provides an indication of the one or more available radio communication protocols (Phillips: see column 3 lines 20-25; the system may provide access to mobile terminals using the GSM 900, DECT and DCS 1800 protocols and the use of beacon function and see column 2 lines 1-5 and Kuffner: see [0015]; measured or received signal quality).

Claim 26, Phillips discloses a method, comprising: receiving from the remote device a reply to a transmitted beacon, the reply indicating a desired radio communication protocol (see column 3 lines 20-25; the system may provide access to mobile terminals using the GSM 900, DECT and DCS 1800 protocols and the use of beacon function and see column 2 lines 1-5); determining whether the desired radio communication protocol is supported and in the event the desired radio communication protocol is supported, determining whether there is an available physical layer block, and when there is an available physical layer block, programming the physical layer

block to communicate according to the desired radio communication protocol (see column 3 lines 56-64; when the protocol has been identified, the corresponding software package is retrieved and downloaded; the download requires the availability of the physical block. The details of the mobile terminal are then checked to ensure that the terminal is registered and the call is set up according to the desired protocol and see column 2 lines 11-13). Philips further discloses downloading the desired radio communication protocol and programming the radio to communicate according to the desired radio communication protocol (see column 56-64). Philips discloses all the subject matter with the exception of explicitly disclosing the reprogramming of an idle or less frequently used physical layer block according to the desired radio communication protocol in the case of there is no available physical layer block. However, Kuffner from the same or similar field of endeavor teaches the reassignment and the reconfiguration of the physical layer blocks (see Figure 1 and [0014]) wherein the reassignment can be based on priority, quality parameter and availability (see [0016] lines 8-13 and [0028] lines 1-14; GPS physical block is reconfigured with CDMA2000 to insure voice communication instead of GPS information). Thus, it would have been obvious to the one skill in the art at the time of the invention to recognize the need of reconfiguring/reprogramming an idle/available or less frequently utilized or less prioritized physical block as taught by the method of Kuffner into the invention of Philips for the purpose of reconfiguring physical layer blocks to accommodate the desired protocol and to marshal the available resources to improve the performance of the

resources currently in use and therefore enhance system performance (Kuffner [0003] lines 9-11 and [0004] lines 13-14).

Claim 30 is rejected for same reasons as claim 26 since at least Kuffner discloses a computer readable medium that includes a storage medium that stores programs that implements the embodiments (see page 4 [0035] and [0036]).

For claims 27 and 31, Phillips further discloses a method, further comprising, if the desired communication protocol is not supported, determining whether a download of the desired radio communication protocol is available, and if available, downloading the desired radio communication protocol and programming the radio to communicate according to the desired radio communication protocol (see column 56-64; when the protocol has been identified, the corresponding software package is retrieved and downloaded. The details of the mobile terminal are then checked to ensure that the terminal is registered and the call is set up according to the desired protocol).

For claims 28 and 32, Phillips in view of Kuffner discloses a method comprising determining whether a physical layer block is currently programmed to operate according to the desired radio communication protocol, and when so, communicating with the remote device according to the desired radio protocol (Kuffner: see Figures 1, 4 and paragraph 0014; 102 might be by default be an 800 MHz and 104 might by default be a 1575 MHz and suggested that these physical layer blocks (102 and 104) could be subsequently reassigned as well), and when not currently programmed, then programming at least one physical layer block to operate according to the desired radio communication protocol and then communicating with the remote device according to

the desired radio communication protocol and then communicating with the remote device according to the desired radio communication protocol (Phillips: see column 3 lines 56-64; when the protocol has been identified, the corresponding software package is retrieved and downloaded. The details of the mobile terminal are then checked to ensure that the terminal is registered and the call is set up according to the desired protocol).

For claim 34, Phillips discloses an apparatus, comprising: a network interface circuit having a radio comprising two or more physical layer blocks (See Figure 2 elements DECT, PHS, GSM900); an omnidirectional antenna to couple to said radio (see Figure 2; antenna "22"); a processor to arrange the two or more physical layer blocks to communicate according to one of at least two or more radio communication protocols (see Figure 2 element "SELECT") wherein said two or more physical layer blocks have a media access layer block being implemented at least in part by said processor (see Figure 2; soft radio and see DECT, GSM900 and the antenna "22"; the physical blocks must have media access layer to communicate, this is the standard based on OSI model, layer 2 "data link layer" that uses MAC addresses; otherwise how would the soft radio functions without this layer?); the processor to determine the availability of the two or more physical layer blocks prior to the arrangement of a particular physical block to a desired communication protocol (see column 3 lines 56-64; when the protocol has been identified, the corresponding software package is retrieved and downloaded; the download requires the availability of the physical block. The details of the mobile terminal are then checked to ensure that the terminal is registered

and the call is set up according to the desired protocol and see column 2 lines 11-13). Philips further discloses downloading the desired radio communication protocol and programming the radio to communicate according to the desired radio communication protocol (see column 56-64). Philips discloses all the subject matter with the exception of explicitly disclosing the reprogramming of an idle or less frequently used physical layer block according to the desired radio communication protocol in the case of there is no available physical layer block. However, Kuffner from the same or similar field of endeavor teaches the reprogramming/reassignment and the reconfiguration of the physical layer blocks (see Figure 1 and [0014]) wherein the reprogramming/reassignment can be based on priority, quality parameter and availability (see [0016] lines 8-13 and [0028] lines 1-14; GPS physical block is reconfigured with CDMA2000 to insure voice communication instead of GPS information). Thus, it would have been obvious to the one skill in the art at the time of the invention to recognize the need of reconfiguring/reprogramming an idle/available or less frequently used or less prioritized physical block as taught by the method of Kuffner into the invention of Philips for the purpose of reconfiguring physical layer blocks to accommodate the desired protocol and to marshal the available resources to improve the performance of the resources currently in use and therefore enhance system performance (Kuffner [0003] lines 9-11 and [0004] lines 13-14).

5. Claims 24, 29, 33 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips in view of Kuffner and further in view of Allison et al (US 6,167,032).

For claims 24 and 37, Phillips in view of Kuffner discloses all the subject matter with the exception of further comprising a hub, and said radio including at least one or more media access control blocks to couple to a network through said hub. However, Allison et al teaches an Ethernet MAC chip that couples to a network (Ethernet physical layer) through a hub (Ethernet interface) (see Figure 1; element 16 "Ethernet MAC chip, element 12 "Ethernet physical layer" and element 34 "Ethernet interface"). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the teaching of Allison et al into the invention of Phillips in view of Kuffner for the purpose of connecting to the Ethernet network using MAC addresses and through the hub that is used as an interface.

For claims 29 and 33, Phillips further discloses a method comprising programming two or more physical layer blocks to communicate according to two or more radio communication protocols (Phillips: see Figure 2 and column 3 lines 23-27; the system may provide access to mobile terminals using the GSM 900, DECT and DCS 1800 and column 3 lines 56-64; when the protocol has been identified, the corresponding software package is retrieved and downloaded). Phillips in view of Kuffner discloses all the subject matter with the exception of coupling the physical layer blocks to a network through a hub. However, Allison discloses the coupling of physical layer blocks to a network through the hub (see Figure 1; element 16 "Ethernet MAC chip, element 12 "Ethernet physical layer" and a hub: element 34 "Ethernet interface"). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the teachings of Allison et al into the invention of Phillips in view of Kuffner for the

purpose of connecting to another network through the hub such as an Ethernet network using MAC and therefore increasing the adaptability of the system.

Response to Argument

6. Applicant's arguments filed have been fully considered but they are not persuasive.

In pages 11-12 of the Remarks, the applicant argues that Kuffner fails to disclose the missing language of the claimed invention which is "*reprogramming a physical layer block to operate according to a desired protocol*". However, the examiner disagrees because:

First of all, the applicant did not explain how is the reprogramming of the instant application is different than the re-deploying/overriding/converting of GPS receiver to a CDMA2000 receiver, wherein the receivers reads on the claimed physical layer (see Kuffner [0028] lines 1-14).

Second of all, the missing language as argued by the applicant does **NOT** need to be used by Kuffner as long as the function of the missing language of the claimed invention is taught/suggested by Kuffner since the rejection is based on obviousness.

Third of all, in the applicant's own disclosure: Figure 3 steps 328, 330 and [0026] lines 14-18, it is cited that "if needed an idle or infrequently utilized one or PHY blocks...may be converted". Therefore, if the claimed term "reprogramming" is different than "converting" which is explained by the specification as shown in Figure 3, then this difference in meaning will consist a new matter. Thus, the claimed term "reprogramming" is interpreted as "converting" which is used in the specification.

Fourth of all, the term 'reprogramming/converting' is broad and it is **NOT** stated in the claim on how the reprogramming is done. So, if a claim is subject to more than one interpretation, at least one of which would render the claim unpatentable over the prior art, the examiner should reject the claim over the prior art based on the interpretation of the claim that renders the prior art applicable. Ex parte Ionescu, 222 USPQ 537 (Bd. Pat. App. & Inter. 1984). In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). Therefore, claims are given their broadest reasonable interpretation. The Federal Circuit's *en banc* decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005).

Finally, Kuffner teaches that the converting/reassignment/reconfiguration/reprogramming of physical blocks can be based on priority, quality parameter and availability (see [0016] lines 8-13 and [0028] lines 1-14; GPS physical block is reconfigured with CDMA2000 to insure voice communication instead of GPS information; Also, the GPS physical block is less utilized block compared to CDMA2000 since more people uses their phones for communicating than getting GPS information). Thus, it would have been obvious to the one skill in the art at the time of the invention to recognize the need of reconfiguring/reprogramming an idle/available or less frequently used or less prioritized physical block as taught by the method of Kuffner into the invention of Philips for the purpose of reconfiguring physical layer blocks to accommodate the desired protocol. Therefore, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly

suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.
8. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and

Art Unit: 2419

pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hicham B. Foud whose telephone number is 571-270-1463. The examiner can normally be reached on Monday - Friday 10-6 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hicham B Foud/
Examiner, Art Unit 2419
04/23/2009

/Wing F. Chan/
Supervisory Patent Examiner, Art Unit 2419